

# Treasury and Federal Reserve Foreign Exchange Operations

*This report, presented by Dino Kos, Executive Vice President, Federal Reserve Bank of New York, and Manager, System Open Market Account, describes the foreign exchange operations of the U.S. Department of the Treasury and the Federal Reserve System for the period from July 2001 through September 2001. Evangeline Sophia Drossos was primarily responsible for preparing the report.*

During the third quarter, the dollar depreciated 7.3 percent against the euro and 4.1 percent against the yen. On a trade-weighted basis, the dollar ended the quarter 2.6 percent lower. Shifting expectations about the pace of the U.S. economic recovery influenced changes in the exchange value of the dollar. Economic data released even before the terrorist attacks on September 11 suggested that the U.S. economic slowdown would likely be more protracted than previously expected, which generally weighed on the dollar. The attacks heightened pre-existing concerns about the weakness of the U.S. economy and lent further momentum to the general trends that prevailed earlier in the quarter. The U.S. monetary authorities did not intervene in the foreign exchange markets during this quarter. After the terrorist attacks, the Federal Reserve established thirty-day reciprocal swap arrangements with the European Central Bank (ECB) and the Bank of England and temporarily augmented its existing swap facility with the Bank of Canada. The ECB drew on the swap facility on three occasions.

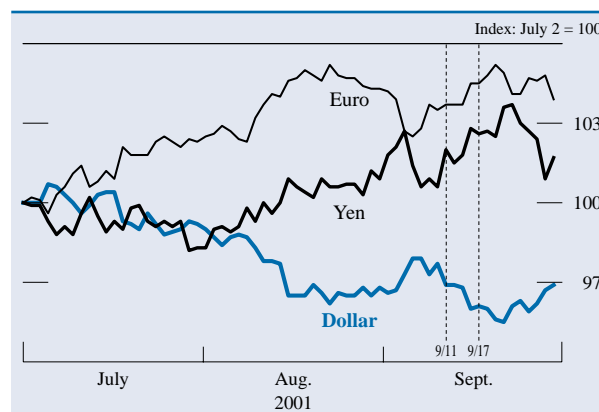
## **DOLLAR DEPRECIATES THROUGH EARLY SEPTEMBER AMID INCREASED UNCERTAINTY OVER THE PROSPECTS FOR U.S. ECONOMIC RECOVERY**

After reaching new multiyear highs on a trade-weighted basis early in the quarter, the exchange value of the dollar declined amid increased expectations for a more protracted economic slowdown in the United States and a broad retrenchment from risk positions. The euro appreciated against the dollar early in the quarter, rising as high as \$0.9182 on August 21, as shifting expectations for relative

growth differentials between the United States and the euro area prompted investors to expand their long euro positions. The euro's initial appreciation coincided with reports of shorter-term investors having established long positions in the euro. According to data from the Commodity Futures Trading Commission (CFTC), net noncommercial long euro positions on the International Money Market futures exchange rose steadily over the quarter and on August 28 reached their highest levels since the inception of the euro. However, market participants suggested that these net long euro positions may have limited the euro's gains somewhat later in the quarter, as investors were reluctant to extend positions further.

The dollar also depreciated against the yen, which strengthened against a wide range of currencies. Investors bought yen to cover short positions amid expectations that funds from Japanese accounts would be repatriated from overseas investments ahead of the Japanese fiscal-half-year-end. CFTC data indicated that noncommercial accounts reported net short yen positions against the dollar through the end of July, but these positions were reversed in August. In early September, the number of net long yen positions reached its highest level in almost two years.

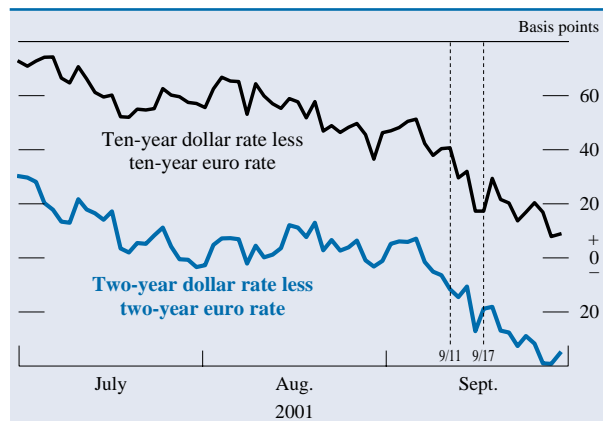
### **1. Trade-weighted Group of Three currencies, 2001:Q3**



NOTE. In this chart and those that follow, the data are for business days except as noted.

SOURCES. Board of Governors of the Federal Reserve System, the Federal Reserve Bank of New York, and the Bank of England.

## 2. Dollar-euro swap differentials, 2001:Q3

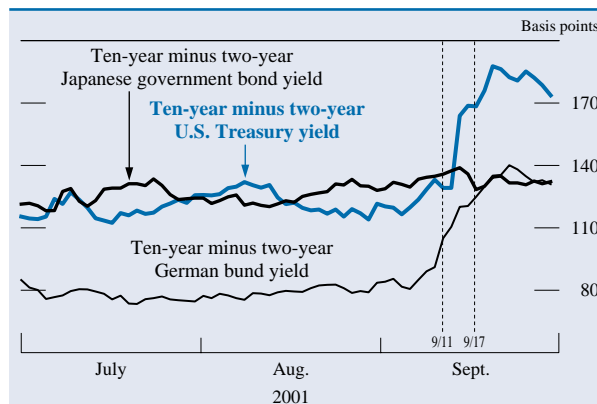


SOURCE: Bloomberg L.P.

U.S. economic data reported early in the quarter showed weakness in both the nonmanufacturing and manufacturing sectors, as well as an increase in the rate of unemployment, and suggested that the U.S. economic slowdown could be more prolonged. Among these data reports were the larger-than-expected declines in the U.S. nonfarm payroll data for June and August. Regional economic surveys, such as the Chicago Purchasing Managers Index released in July and the Philadelphia Business Outlook Survey released in August, also pointed to ongoing contraction in manufacturing activity. The August 8 release of the Federal Reserve's Beige Book was interpreted by many as suggesting that weakness in the manufacturing sector had spilled over into the broader economy. Indications of a nascent stabilization in the U.S. manufacturing sector, represented by modest increases reported in the National Association of Purchasing Managers surveys for July and August, were overshadowed by ongoing concerns about U.S. corporate profitability as analysts continued to lower their earnings forecasts.

Concerns about the U.S. economic outlook were mirrored in other economies as euro-area and Japanese economic data indicated further deterioration. In the euro-area countries, data showed continued declines in the manufacturing sector, particularly in Germany where factory orders fell sharply in July. Data released in August indicated the slowing pace of economic activity, as second-quarter data for German GDP were flat and showed the lowest year-on-year growth rate since 1998. In Japan, economic growth was negative in the second quarter as consumer spending and business investment remained stagnant. In this environment, many central banks eased monetary policy; from the beginning of the quarter through early September, the Federal Reserve, the ECB, and

## 3. Group of Three government yield curves, 2001:Q3

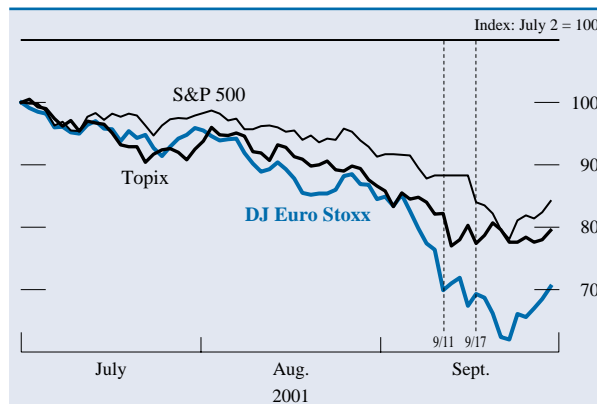


SOURCE: Bloomberg L.P.

the Reserve Bank of Australia each lowered their policy rates 25 basis points. The Bank of Canada lowered its policy rate 50 basis points. Implied yields on global interest rate futures contracts fell in response to the policy rate cuts by central banks and the heightened expectations of additional easing. Over this period, interest rate differentials between the United States and the euro area narrowed. The sharpest declines in U.S.-euro area swap spreads occurred in the short end of the curve, with the two-year U.S. swap rate falling below the two-year euro-area swap rate for the first time since the inception of the euro.

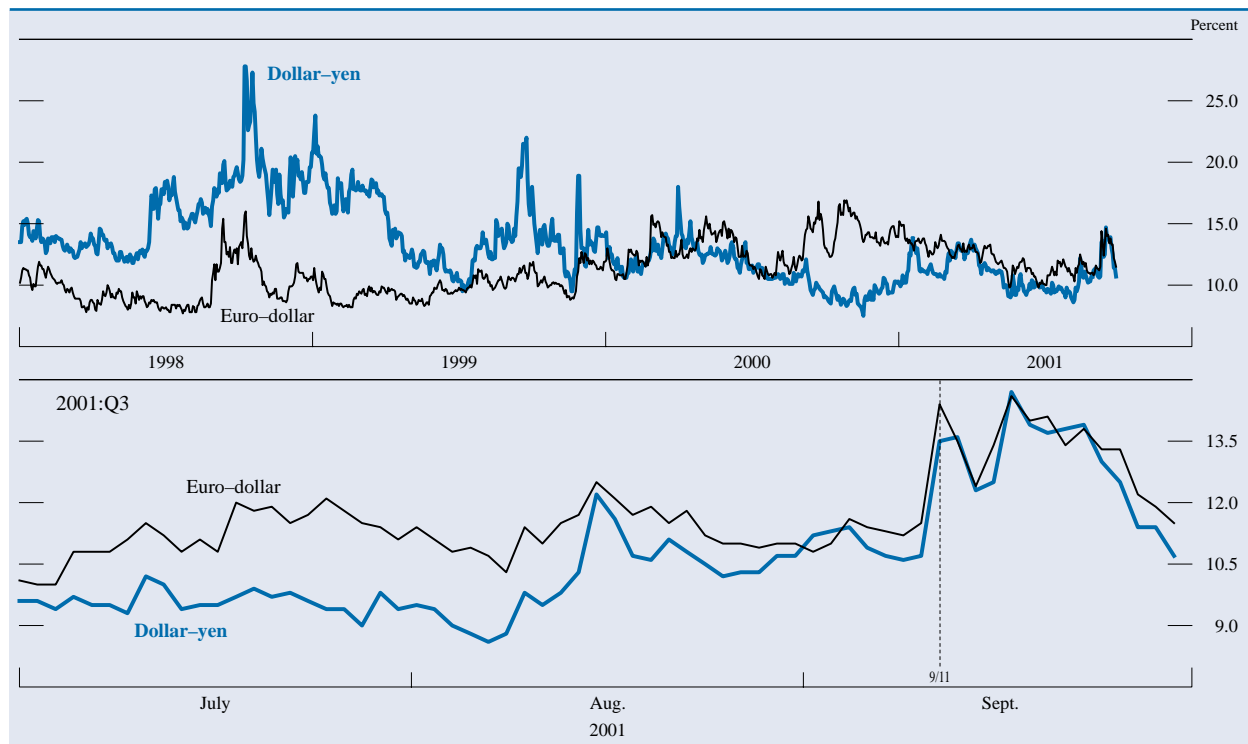
Increased expectations for slowing global growth prompted investors to pull back from higher-risk assets. Global equity indexes and prices on corporate debt declined broadly amid increasing pessimism about corporate profitability worldwide. These factors, as well as the rate cuts by central banks, contributed to declines in short-dated sovereign debt yields and to the steepening of sovereign yield curves as

## 4. Global benchmark equity indexes, 2001:Q3



SOURCE: Bloomberg L.P.

## 5. Volatility implied by one-month currency option prices, 1998–2001:Q3



SOURCE: J.P. Morgan Chase &amp; Co.

investors shifted from nongovernment, fixed-income securities and equities into safer, more liquid assets. Developments in Latin America may also have contributed to heightened risk aversion early in the quarter as investors expressed ongoing concern about the ability of Argentina to meet its debt-servicing obligations. The Emerging Markets Bond Index Plus (EMBI+) sovereign spread over comparable U.S. Treasury securities, which had already widened considerably earlier in the year, spiked higher in July.

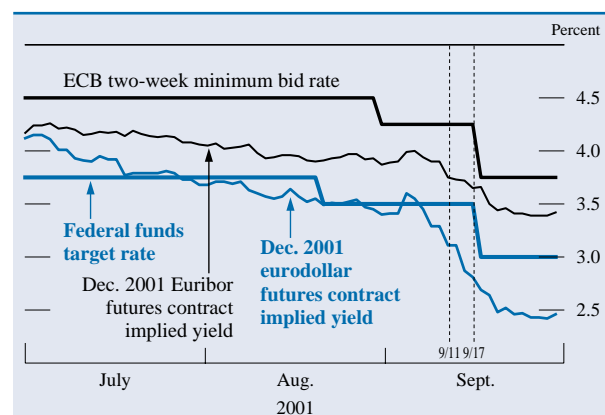
### RISK AVERSION HEIGHTENS FURTHER AFTER SEPTEMBER 11 TERRORIST ATTACKS

The September 11 terrorist attacks heightened concern about the risks to the U.S. economy, prompting further reductions in risk positions. Against this backdrop, foreign exchange trading volumes declined, as investors were reluctant to establish new positions. Nevertheless, trading in the currency markets appeared orderly but subdued, as many New York dealers moved their activities to local contingency sites and overseas offices in the days immediately following the attacks. In addition, implied volatility on Group of Three currency options spiked after the attacks but within days quickly declined, reflecting

the relatively stable behavior of spot currency rates. At the same time, market participants continued to protect against the risk of dollar depreciation as one-month risk reversals showed a preference for dollar puts against the euro and the yen.

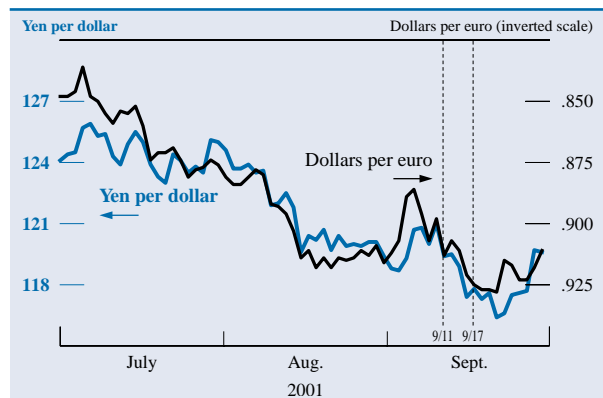
Expectations for near-term interest rate cuts increased after September 11, as market participants anticipated that the short-term economic effect of the attacks on the U.S. economy would generate sizable

## 6. U.S. and euro-area policy rates and implied yields on interest rate futures contracts, 2001:Q3



SOURCE: Bloomberg L.P.

## 7. The dollar against the euro and the yen, 2001:Q3



SOURCE: Bloomberg L.P.

disruptions in business activity and sharp declines in consumer confidence. In response to the increased uncertainty generated by the attacks, many central banks lowered their policy rates. On the morning of September 17, before U.S. equity markets resumed trading after four days of closure, the Federal Open Market Committee lowered the federal funds target rate 50 basis points. Later that day, the Bank of Canada, the ECB, and the Swiss National Bank also cut rates 50 basis points. The next day, the Bank of Japan lowered its discount rate 15 basis points and announced an increase in its target for current account bank reserves, and the Bank of England lowered its repurchase agreement rate 25 basis points.

In contrast to the sharp price action in some other asset markets, the dollar traded within a relatively narrow range from September 11 to the end of the quarter. The dollar was little changed on balance against the euro after the attacks, despite the increased uncertainty about the U.S. economic out-

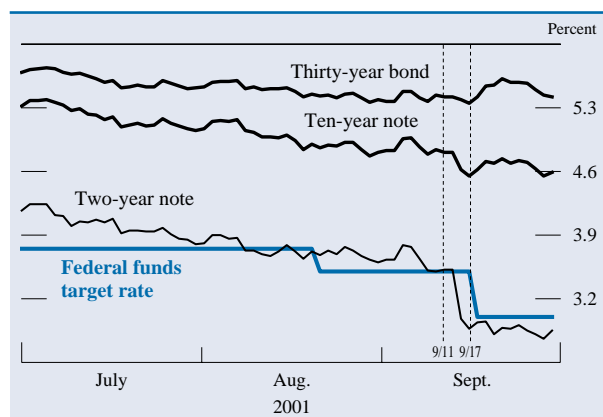
look. Increased demand among global investors for the relative safety and liquidity of shorter-dated U.S. Treasury securities helped the dollar partially retrace earlier declines. The yen initially continued to appreciate against other major currencies, ahead of the Japanese fiscal-half-year-end, reaching a high of 116.38 yen per dollar on September 20. The exchange rate closed the quarter at 119.56 yen per dollar, however, after intervention activity by the Japanese monetary authorities late in the quarter aimed at weakening the yen. Japanese monetary authorities publicly confirmed sales of yen against dollars on September 17 and additional sales of yen on six subsequent occasions through the end of the quarter.

After the September 11 attack, the shift out of higher-yielding markets into perceived safe-haven assets pressured the Australian and the New Zealand dollars, which depreciated broadly, while the Swiss franc strengthened against other major currencies. An additional factor that boosted demand for Swiss francs was position-covering, in anticipation of Swiss franc appreciation, by investors who had borrowed the currency to fund positions in higher-yielding assets. Investors' broad-based reductions in risk positions also prompted sharp declines in emerging-market and noninvestment-grade corporate debt. The EMBI+ sovereign spread over comparable U.S. Treasury securities reached its widest level in almost two years, and U.S. high-risk corporate yield spreads reached their highest levels since 1991.

### TEMPORARY SWAP LINES ESTABLISHED WITH OTHER CENTRAL BANKS

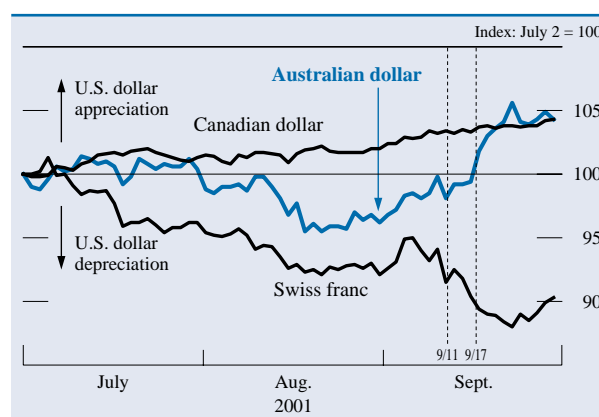
To facilitate the functioning of financial markets and provide liquidity in U.S. dollars, the Federal Reserve

## 8. U.S. Treasury coupon yields and federal funds target rate, 2001:Q3



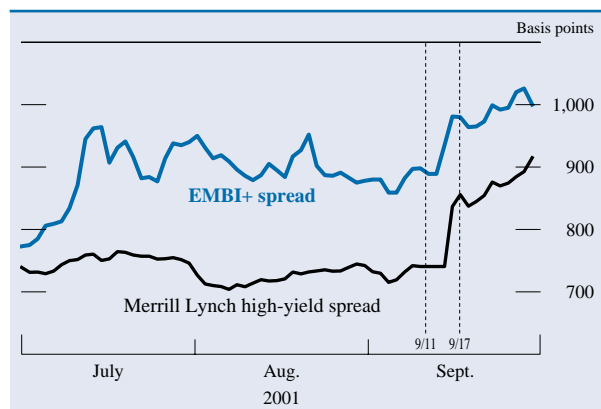
SOURCE: Bloomberg L.P.

## 9. Foreign currency per U.S. dollar, 2001:Q3



SOURCE: Bloomberg L.P.

#### 10. Emerging-market and U.S. high-yield spreads over U.S. Treasuries, 2001:Q3



SOURCES: J.P. Morgan Chase & Co., Merrill Lynch & Co.

approved the establishment of temporary reciprocal swap arrangements with the ECB and the Bank of England on September 12 and September 14 respectively. Additionally, on September 13, the Federal Reserve and the Bank of Canada agreed to a temporary augmentation of the swap facility already in place. Under the terms of these agreements, the ECB, the Bank of England, and the Bank of Canada would be able to draw up to \$50 billion, \$30 billion, and \$10 billion, respectively, in exchange for local currency. These arrangements allowed the central banks to provide dollar proceeds of the swaps to be temporarily lent to local banks to facilitate the settlement of their dollar transactions. The temporary swap arrangements with the ECB and the Bank of England, as well as the augmentation with the Bank of Canada, expired after thirty days.

The ECB drew on its swap line on September 12, 13, and 14. The net amount drawn totaled \$5.4 billion on September 12, \$14.1 billion on September 13, and \$3.9 billion on September 14. As of September 17, the net amount outstanding fell to zero, and there was no further swap activity through the end of the quarter. The Bank of England and the Bank of Canada did not draw on their respective swap lines during the quarter.

#### TREASURY AND FEDERAL RESERVE FOREIGN EXCHANGE RESERVES

The U.S. monetary authorities did not undertake any intervention operations during the quarter. At the end of the quarter, the current values of the euro and yen reserve holdings totaled \$15.4 billion for the Federal Reserve's System Open Market Account and \$15.4 billion for the Treasury's Exchange Stabiliza-

#### Discontinuation of "Treasury and Federal Reserve Foreign Exchange Operations" in the *Federal Reserve Bulletin*

The quarterly report "Treasury and Federal Reserve Foreign Exchange Operations," by the Federal Reserve Bank of New York, will not be reprinted in the *Federal Reserve Bulletin* after the December 2001 issue. Each quarter's report is available soon after the end of the quarter on the web site of the Federal Reserve Bank of New York ([www.newyorkfed.org/pihome/news/forex/](http://www.newyorkfed.org/pihome/news/forex/)), which also has the reports back to 1996. The reports for years before 1996 are available in paper copies from the Public Information Department, Federal Reserve Bank of New York, 33 Liberty Street, New York, NY 10045 (tel. 212-720-5424).

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Other reprints will also be eliminated from the *Bulletin* after December 2001: the monthly report on industrial production and capacity utilization, congressional testimony, the FOMC minutes, and the Federal Reserve Bank of New York's annual "Domestic Open Market Operations" report (the text portion of "Open Market Operations" will be reprinted in the Board's *Annual Report* rather than in the *Bulletin*). The documents are widely distributed when originally published, and several sources for historical information are available.

tion Fund. The U.S. monetary authorities invest their foreign currency balances in a variety of instruments that yield market-related rates of return and have a high degree of liquidity and credit quality. To the greatest extent possible, these investments are split evenly between the Federal Reserve and the Treasury.

A significant portion of the U.S. monetary authorities' foreign exchange reserves is invested in European and Japanese government securities held outright or under repurchase agreement. Under euro-denominated repurchase agreements, the U.S. monetary authorities accept sovereign debt backed by the full faith and credit of the following governments: Germany, Belgium, France, Italy, the Netherlands, and Spain. Foreign currency reserves are also invested in deposits at the Bank for International Settlements and in facilities at other official institutions. As of September 28, direct holdings of foreign government securities totaled \$13.6 billion, split evenly between the Federal Reserve and the Treasury. Foreign government securities held under repurchase agreement totaled \$2.8 billion at the end of the quarter and were also split evenly between the two authorities. □



## 1. Foreign currency holdings of U.S. monetary authorities based on current exchange rates, 2001:Q3

Millions of dollars

Item	Balance, June 29, 2001	Quarterly changes in balances, by source					Balance, Sept. 28, 2001
		Net purchases and sales <sup>1</sup>	Effect of sales <sup>2</sup>	Interest collected <sup>3</sup>	Revaluation <sup>4</sup>	Interest accrual and other	
FEDERAL RESERVE SYSTEM OPEN MARKET ACCOUNT (SOMA)							
Euro .....	6,792.0	.0	.0	87.6	501.0	.0	7,380.6
Japanese yen .....	7,570.2	.0	.0	.6	349.2	.0	7,920.0
Total .....	14,362.2	.0	.0	88.2	850.2	.0	15,300.6
Interest receivables .....	67.1	. . .	. . .	. . .	4.9	−6.6	65.4
Total .....	14,429.3	.0	.0	88.2	855.1	−6.6	15,366.0
U.S. TREASURY EXCHANGE STABILIZATION FUND (ESF)							
Euro .....	6,787.0	.0	.0	86.3	500.6	. . .	7,373.9
Japanese yen .....	7,570.3	.0	.0	.6	349.2	. . .	7,920.1
Total .....	14,357.3	.0	.0	86.9	849.8	. . .	15,294.0
Interest receivables <sup>4</sup> .....	66.4	. . .	. . .	. . .	4.9	−5.9	65.4
Total .....	14,423.7	.0	.0	86.9	854.7	−5.9	15,359.4

NOTE. Balances are now stated at amortized cost. Beginning balances have been restated to conform with the new presentation. Figures may not sum to totals because of rounding.

1. Purchases and sales for the purpose of this table include foreign currency sales and purchases related to official activity, swap drawings and repayments, and warehousing.

2. This figure is calculated using marked-to-market exchange rates; it represents the difference between the sale exchange rate and the most recent revaluation exchange rate.

3. Current value change in foreign currency from interest collected on matured investments.

4. Foreign currency and interest receivables are marked to market daily at prevailing rates.

... Not applicable.

## 2. Net profits or losses (–) on U.S. Treasury and Federal Reserve foreign exchange operations, based on historical cost-of-acquisition exchange rates, 2001:Q3

Millions of dollars

Period and item	Federal Reserve System Open Market Account	U.S. Treasury Exchange Stabilization Fund
<i>Valuation profits and losses on outstanding assets and liabilities, June 29, 2001</i>		
Euro .....	-1,665.4	-1,881.8
Japanese yen .....	508.2	720.4
<b>Total .....</b>	<b>-1,157.2</b>	<b>-1,161.4</b>
<i>Realized profits and losses from foreign currency sales, June 29, 2001–Sept. 28, 2001</i>		
Euro .....	.0	.0
Japanese yen .....	.0	.0
<b>Total .....</b>	<b>.0</b>	<b>.0</b>
<i>Valuation profits and losses on outstanding assets and liabilities, Sept. 28, 2001</i>		
Euro .....	505.9	505.5
Japanese yen .....	349.2	349.2
<b>Total .....</b>	<b>855.1</b>	<b>854.7</b>

## 3. Reciprocal currency arrangements, September 28, 2001

Millions of dollars

Institution	Amount of facility	Outstanding, Sept. 28, 2001
<b>Reciprocal currency arrangements</b>		
Bank of Canada .....	10,000 <sup>1</sup>	.0
Bank of Mexico .....	3,000	.0
European Central Bank .....	50,000 <sup>2</sup>	.0
Bank of England .....	30,000 <sup>2</sup>	.0
<b>Total .....</b>	<b>93,000</b>	<b>.0</b>
<b>Federal Reserve and U.S. Treasury Exchange Stabilization Fund currency arrangements</b>		
Bank of Mexico .....	3,000	.0
<b>Total .....</b>	<b>3,000</b>	<b>.0</b>

1. Includes temporary augmentation of existing \$2 billion swap arrangement.

2. Temporary thirty-day swap arrangement.

## 4. Daily European Central Bank swap facility activity, September 12–15, 2001

Millions of dollars

Date	Drawings	Repayments	Amount outstanding
Sept. 12 .....	5.4	.0	5.4
Sept. 13 .....	14.147	.0	19.547
Sept. 14 .....	3.915	14.147	9.315
Sept. 15 .....	.0	9.315	.0